

The DOE Webinar will begin at 2:00 p.m. EST

- **Why is there no sound?**
 - Try turning the volume up on your computer speakers.
 - For technical support please call 1-800-843-9166; For help via email, please send your inquiries to help@readytalk.com
- **Will DOE provide access to the recorded webinar after the meeting?**
 - Yes, all those who registered will receive a link to the slides and to the recorded webinar soon after the meeting. It will also be available on the DOE SBIR/STTR web site.
- **Where can I find the Funding Opportunity Announcement being discussed today?**
 - This link will take you to the FY 2016 Phase I Release 2 Funding Opportunity Announcement:
http://science.energy.gov/~media/grants/pdf/foas/2016/SC_FOA_0001417.pdf
- **What if my question was not answered at today's webinar?**
 - Please contact us by email at sbir-sttr@science.doe.gov if your question was not answered during today's webinar.





***DOE's
Small Business Innovation Research (SBIR)
and Small Business Technology Transfer
(STTR) Programs***

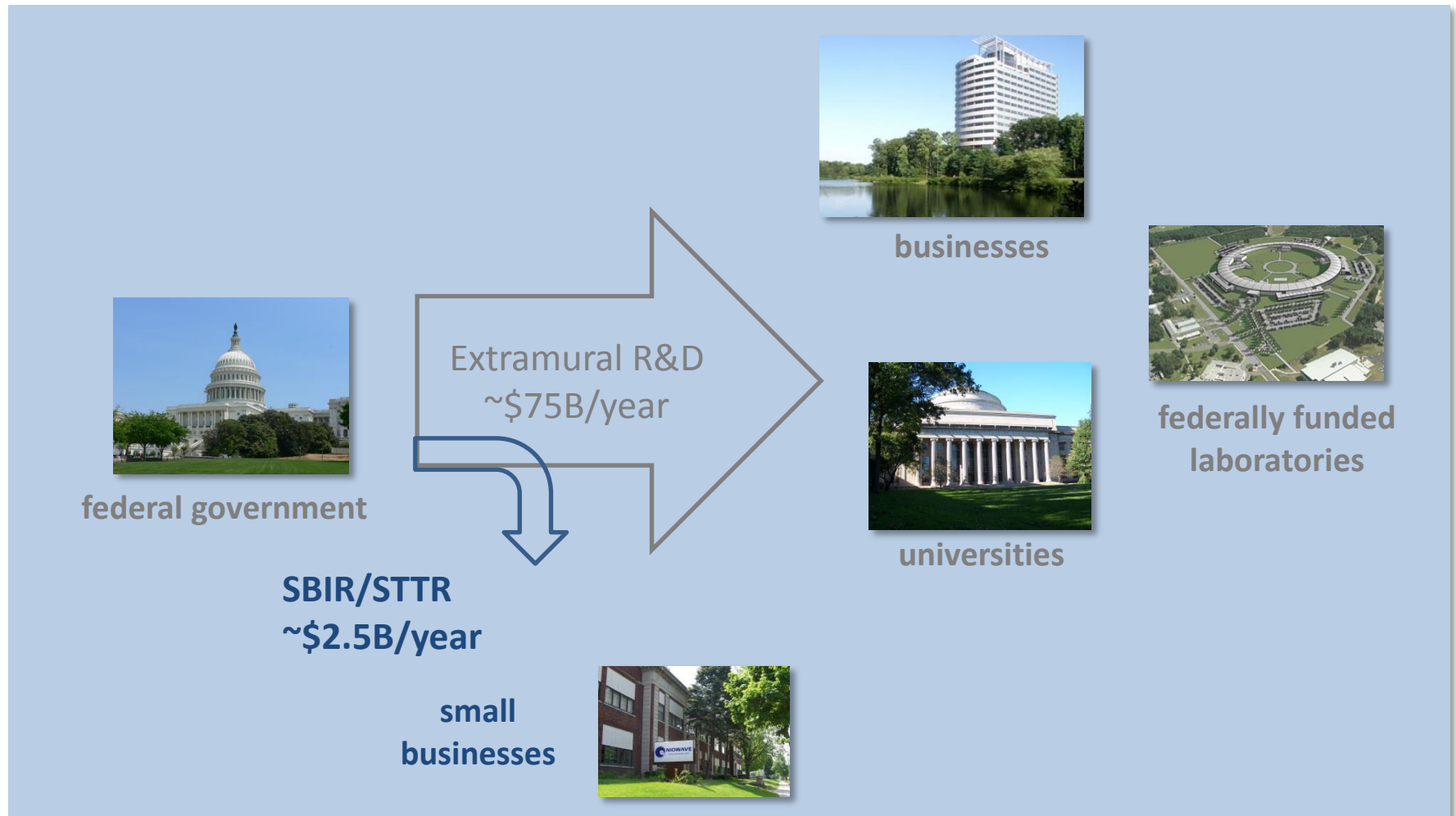
***Manny Oliver
Director, DOE SBIR/STTR Programs Office***

**DOE Webinar
December 4, 2015**

Overview of Federal SBIR/STTR Programs



FEDERAL Extramural R&D



Program Goals

Small Business Innovation Research (SBIR) *est. 1982*

- Stimulate technological innovation
- Use small business to meet Federal R&D needs
- Foster and encourage participation by women and socially and economically disadvantaged persons in technological innovation
- Increase private-sector commercialization of innovations derived from Federal R&D

Small Business Technology Transfer (STTR) *est. 1992*

- Stimulate and foster scientific and technological innovation through cooperative research and development carried out between small business concerns and research institutions
- Foster technology transfer between small business concerns and research institutions

SBIR and STTR were reauthorized on December 31, 2011 (P.L. 112-81) through September 30, 2017



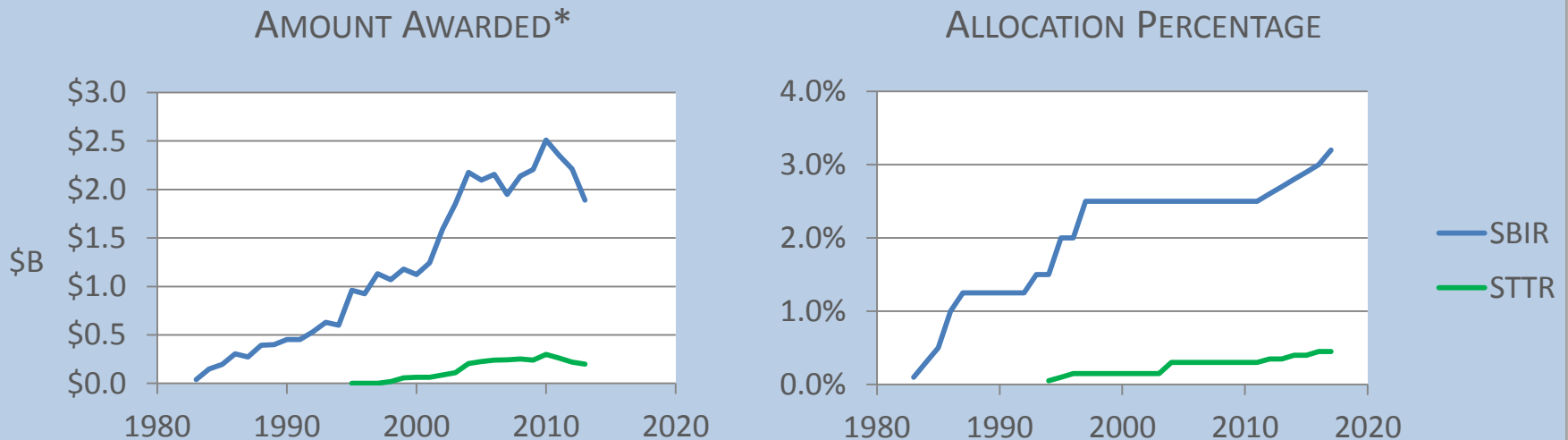
Major Differences between SBIR & STTR

- STTR: Requires Collaboration with a Research Institution
 - Research Institution
 - College, University, Federal R&D Laboratory, other non-profit research organization
- Principal Investigator primary employment
 - SBIR: employed by the small business
 - STTR: employed by the small business OR research institution
- Percentage of R/R&D conducted by the small business
 - SBIR
 - Phase I: minimum 2/3 by small business
 - Phase II: minimum 1/2 by small business
 - STTR:
 - Phase I & II: minimum 40% by small business; minimum 30% by research institution
 - Subcontracting is permitted provided the level of effort requirements above are met

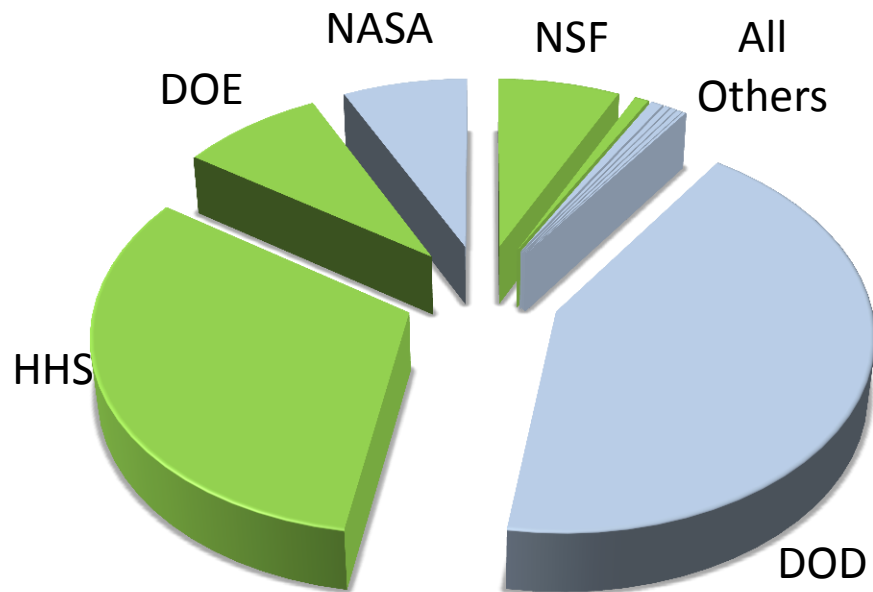


SBIR & STTR Funding Levels

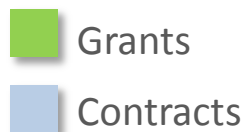
- Agencies allocate a percentage of their extramural R/R&D budgets for the SBIR & STTR programs
 - SBIR: 3.0% (FY 2016), for agencies with >\$100M in extramural R/R&D
 - STTR: 0.45% (FY 2016), for agencies with >\$1B in extramural R/R&D
- Congress has increased the allocation percentages since the programs were initiated



SBIR/STTR Budgets by Agency, FY2015



~ \$2.5B in FY2015 across all agencies



Agencies with SBIR and STTR Programs	Budget
Department of Defense (DOD)	\$ 1.070 B
Department of Health and Human Services (HHS), including the National Institutes of Health (NIH)*	\$797.0 M
Department of Energy (DOE), including Advanced Research Projects Agency – Energy (ARPA-E)	\$206.1M
National Aeronautics and Space Administration (NASA)	\$ 180.1 M
National Science Foundation (NSF)	\$176.0 M
Agencies with SBIR Programs	Budget
U.S. Department of Agriculture (USDA)	\$20.3M
Department of Homeland Security (DHS): Science and Technology Directorate (S&T) and Domestic Nuclear Detection Office (DNDO)	\$17.7 M
Department of Commerce: National Oceanic and Atmospheric Administration (NOAA) and National Institute of Standards and Technology (NIST)*	\$8.4M
Department of Transportation (DOT)	\$7.9 M
Department of Education (ED)	\$7.5 M
Environmental Protection Agency (EPA)	\$4.2 M

*NIH also issues contracts; within DOC, NIST issues grants and NOAA issues contracts



U.S. DEPARTMENT OF
ENERGY

SBIR/STTR
Programs Office

Small Business Eligibility for SBIR & STTR

- For-profit U.S. business
- 500 employees or fewer, including affiliates
- Ownership (*applies to all agencies*)
 - Be a concern which is more than 50% directly owned and controlled by one or more individuals (who are citizens or permanent resident aliens of the United States), other small business concerns (each of which is more than 50% directly owned and controlled by individuals who are citizens or permanent resident aliens of the United States), or any combination of these
 - Joint ventures where the entities meet the requirements above
- Portfolio Companies (*currently only NIH & ARPA-E*)
 - Be a concern which is more than 50% owned by multiple venture capital operating companies, hedge funds, private equity firms, or any combination of these. No single venture capital operating company, hedge fund, or private equity firm may own more than 50% of the concern.
- Performance of R&D
 - All R&D must be performed in the United States



3 Phases

PHASE I: FEASIBILITY, PROOF OF CONCEPT

- Award Amount: \$150,000 (guideline), \$225,000 (max.)
- Project Duration: 6-12 months



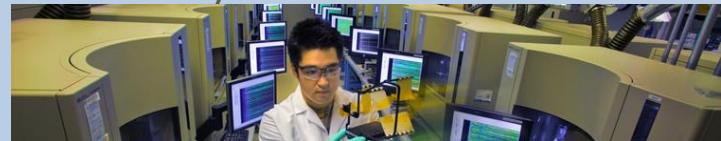
PHASE II: CONTINUE R/R&D FOR PROTOTYPES OR PROCESSES

- Award Amount: \$1,000,000 (guideline), \$1,500,000 (max.)
- Project Duration: 2 years



PHASE III: COMMERCIALIZATION

- Federal or Private Funding (non-SBIR/STTR funds)
- No dollar or time limits



SBIR and STTR Awards

- Critical Early Stage R/R&D funding
 - The SBIR & STTR programs provide funding for high risk, innovative projects
 - SBIR & STTR awards provide credibility when seeking funding or partners
- SBIR/STTR awards are executed as grants or contracts
 - No repayment
 - No dilution of company equity
 - No cost sharing is required for Phases I and II. Cost sharing may not be used as an evaluation criteria.



Intellectual Property

- Patent rights
 - Small business concerns normally retain the principal worldwide patent rights to any invention developed with Government support
- Government Use
 - The Federal Government receives a royalty-free license for Federal Government use

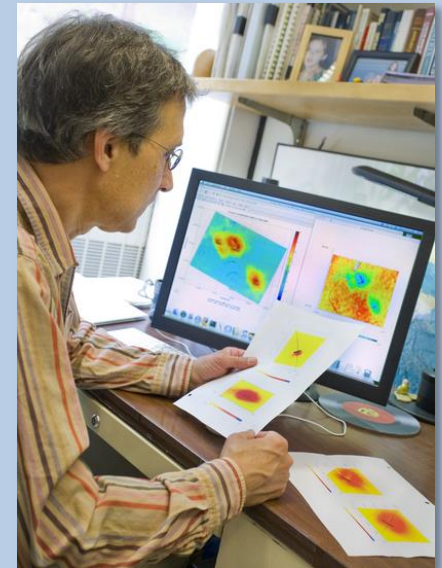


<http://www.uspto.gov/>



Data Protection

- Protection Period
 - Data generated from your R/R&D is protected from public disclosure for a minimum of 4 years (civilian agencies) or 5 years (DOD) after the conclusion of your award (Phase I, Phase II, or federally funded Phase III)
- Government Use
 - The Government retains a royalty-free license for Government use of any technical data delivered under an SBIR award, whether patented or not



DOE SBIR & STTR Programs: Technology Areas



U. S. Department of Energy Mission

- **The mission of the Department of Energy** is to ensure America's security and prosperity by addressing its energy, environmental, and nuclear challenges through transformative science and technology solutions.
 - **Goal 1:** Catalyze the timely, material, and efficient transformation of the nation's energy system and secure U.S. leadership in **clean energy** technologies.
 - **Goal 2:** Maintain a vibrant U.S. effort in **science and engineering** as a cornerstone of our economic prosperity, with clear leadership in strategic areas.
 - **Goal 3:** Enhance **nuclear security** through defense, nonproliferation, and environmental efforts.

Program Offices Participating in the DOE SBIR/STTR Programs

Electricity Delivery & Energy Reliability

Energy Efficiency & Renewable Energy

Fossil Energy

Nuclear Energy

Advanced Scientific Computing Research

Basic Energy Sciences

Biological & Environmental Research

Fusion Energy Sciences

High Energy Physics

Nuclear Physics

Defense Nuclear Nonproliferation

Environmental Management



Operation of the DOE SBIR and STTR Programs

- DOE Program Office
 - Develop Topics
 - Identify Reviewers (Scientific Peer Review)
 - Recommend Awardees
 - Manage Projects

*Technical Expertise Leveraged
Throughout DOE*



- DOE Chicago Office
 - Negotiate Grants
 - Issue New and Continuation Awards
 - Grant Closeout

Single Grants Office for Awardees



- DOE SBIR/STTR Programs Office
 - Develop Funding Opportunity Announcements
 - Administer Review and Selection Process
 - Ensure Compliance with SBIR/STTR Legislation
 - Conduct Outreach

Single Administrative Office for Applicants



Information Available at DOE Program Office Websites

- Mission
- Funding Priorities and Announcements (non-SBIR)
- Technical Reference Data and Reports
- Conference Proceedings
- Contact Information

The screenshot displays the ENERGY.GOV website for the Office of Energy Efficiency & Renewable Energy. The header is green with the site name and a search bar. A navigation menu includes SERVICES, EFFICIENCY, RENEWABLES, TRANSPORTATION, ABOUT US, and OFFICES. The main content area features a large image of wind turbines at sunset, followed by a headline 'Reports Showcase Growth of U.S. Wind Power Industry' with a brief description and a 'READ MORE' link. Below this is a grid of three categories: RENEWABLE POWER (with links for Solar, Geothermal, Wind, and Water), ENERGY-SAVING HOMES, BUILDINGS, & MANUFACTURING (with links for Homes, Buildings, Advanced Manufacturing, and Government Energy Management), and SUSTAINABLE TRANSPORTATION (with links for Vehicles, Bioenergy, and Hydrogen & Fuel Cells). The bottom section includes 'EERE SUCCESSES', 'CLEAN ENERGY MANUFACTURING INITIATIVE', and 'FY16 BUDGET REQUEST'. On the right sidebar, there are social media links (Facebook, Twitter, RSS, Subscribe), a 'NEWS' section with two articles dated August 12 and 10, 2015, a 'BLOG' section with one article dated August 18, 2015, and a 'VIDEOS' section with two video thumbnails titled 'Energy 101: Clean Energy Manufacturing' and 'Race to Zero Start Competition'.



DOE Program Offices supporting Goal 1: Clean Energy Technologies

- [Office of Electricity Delivery and Energy Reliability](#)
- [Office of Energy Efficiency and Renewable Energy](#)
- [Office of Fossil Energy](#)
- [Office of Nuclear Energy](#)



R&D Topic Areas

- Clean Coal Technologies
- Advanced Turbine Technology
- Oil and Gas Technologies
- Advanced Materials and Technologies for Nuclear Energy
- Smart Grid Technologies
- Energy Storage
- Bio-energy & Biofuels
- Hydrogen & Fuel Cells
- Solar Power
- Water Power
- Wind Energy
- Advanced Manufacturing
- Efficient Buildings & Vehicles



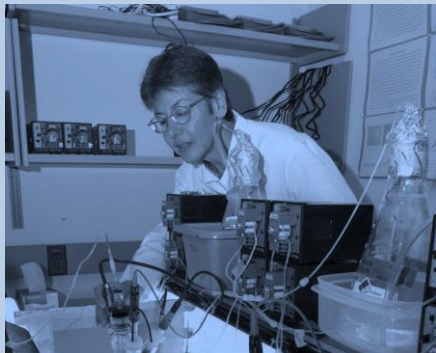
DOE Program Offices Supporting

Goal 2: Science and Engineering Leadership

- [Advanced Scientific Computing Research](#)
- [Basic Energy Sciences](#)
- [Biological and Environmental Research](#)
- [Fusion Energy Sciences](#)
- [High Energy Physics](#)
- [Nuclear Physics](#)

R&D Topic Areas

- Advanced Detectors
- Accelerator technology
- RF Components and Systems
- Data Acquisition, Processing and Analysis
- Fusion Energy Systems
- High Performance Computing & Networking
- Modeling and Simulation
- Atmospheric Measurement Technology
- Genomic Science and Related Biotechnologies
- Advanced Sources: neutron, x-ray, electron



DOE Program Offices Supporting

Goal 3: Nuclear Security

- [Office of Defense Nuclear Nonproliferation](#)
- [Office of Environmental Management](#)

R&D Topic Areas

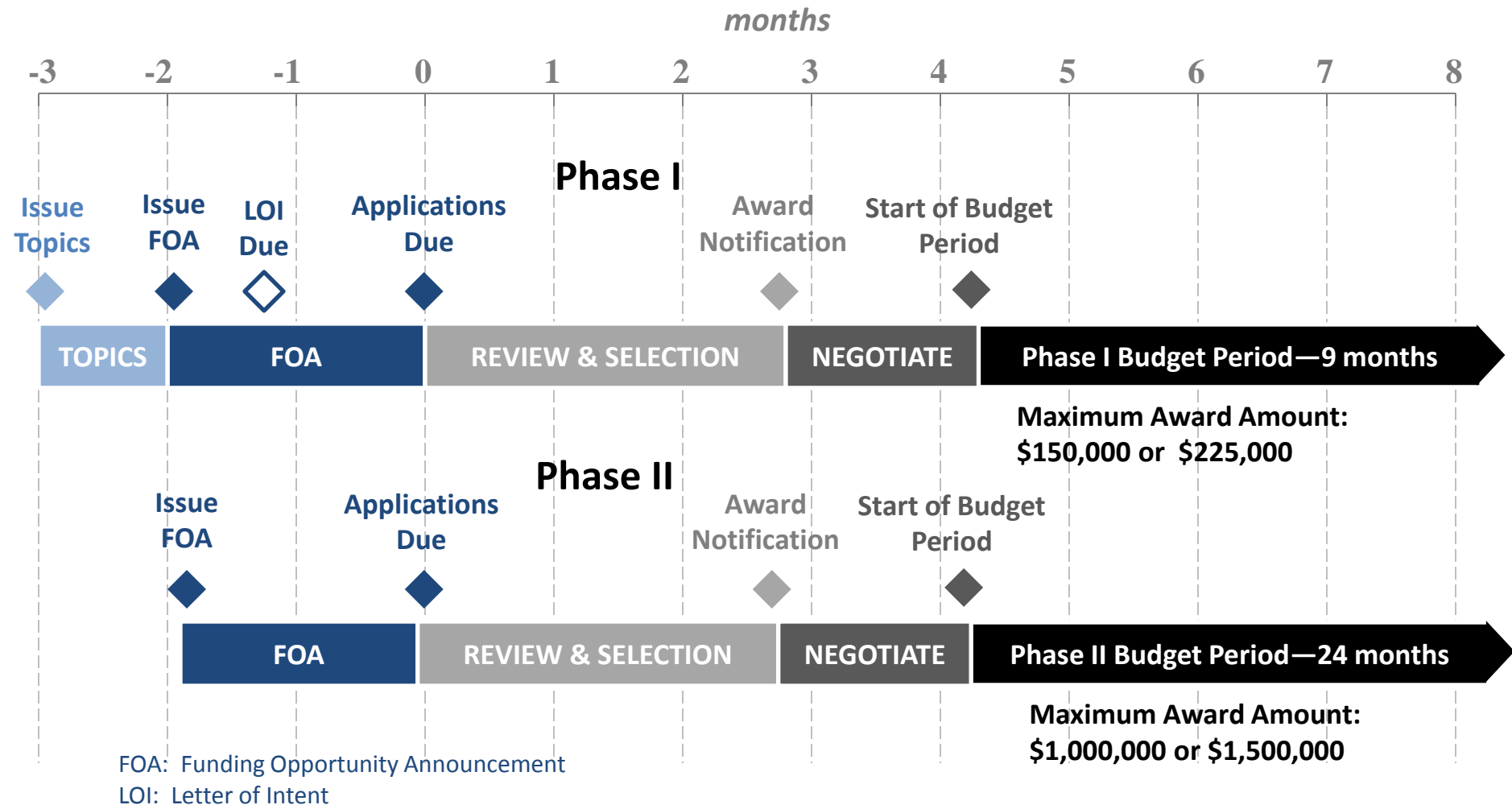
- Novel Radiation Monitoring Concepts
- In Situ Remediation
- Facility Deactivation and Decommissioning
- Remote Sensing
- Global Nuclear Safeguards R&D
- Nuclear Detonation Detection



DOE SBIR & STTR Programs: Application & Award Process



Application & Award Timelines



Award Sequence

Standard



Fast-Track



Sequential Phase II Awards

- Phase IIA: For projects requiring more time and funding than available with a single Phase II award to complete prototype or process development
- Phase IIB: For projects requiring additional R&D funding to transition an innovation towards commercialization



FY2016 SBIR/STTR Phase I Funding Opportunity Announcements

Phase I Release 1

- Office of Advanced Scientific Computing Research (ASCR)
- Office of Basic Energy Sciences (BES)
- Office of Biological and Environmental Research (BES)
- Office of Nuclear Physics (NP)

Phase I Release 2

- Office of Defense Nuclear Nonproliferation (NA)
- Office of Electricity Delivery and Energy Reliability (OE)
- Office of Energy Efficiency and Renewable Energy (EERE)
- Office of Environmental Management (EM)
- Office of Fossil Energy (FE)
- Office of Fusion Energy Sciences (FES)
- Office of High Energy Physics (HEP)
- Office of Nuclear Energy (NE)



Schedule: FY16 Phase I, Releases 1&2

Phase I FOA Schedule	Release 1	Release 2
Topics Issued	July 20, 2015	November 2, 2015
Topic Webinars	Week of July 27, 2015	Week of November 9, 2015
Funding Opportunity Announcement Issued	August 17, 2015	November 30, 2015
FOA Webinar	August 21, 2015	December 4, 2015
Letters of Intent Due	September 8, 2015	December 21, 2015
Full Applications Due	October 19, 2015	February 9, 2016
Award Notification	Early January 2016*	Early May 2016*
Grant Start Date	February 22, 2016*	June 13, 2016*

**preliminary dates subject to change*

Schedule: FY16 Phase II, Releases 1&2

Phase II FOA Schedule	Release 1	Release 2
Funding Opportunity Announcement Issued	October 26, 2015	February 16, 2016
Letters of Intent Due (Supplemental Phase II only)	November 16, 2015	March 16, 2016
Full Applications Due	December 15, 2015	April 5, 2016
Award Notification	Late February 2016*	Mid-June 2016*
Grant Start Date	April 11, 2016*	August 1, 2016*

**preliminary dates subject to change*



Online Assistance for the Application Process

- We have launched a new online learning system to assist new applicants:
 - <http://www.doesbirlearning.com/>
- Additional resources can be found on our website:
 - <http://science.energy.gov/sbir/applicant-and-awardee-resources/>



Topics

- Topics Document
 - DOE primarily uses focused topics
 - Issued 4 weeks prior to the Funding Opportunity Announcement
- Communication with DOE program managers
 - Open communication permitted
- Webinar
 - DOE program managers discuss their topics
 - Applicants submit questions in advance or during the webinar
 - Webinars are recorded and available from our website



U.S. Department of Energy

Small Business Innovation Research (SBIR) and
Small Business Technology Transfer (STTR) Program

Topics **FY 2016** **Phase I** **Release 1**

Version 3, August 18, 2015

Participating DOE Research Programs

- Office of Advanced Scientific Computing Research
- Office of Biological and Environmental Research
- Office of Basic Energy Sciences
- Office of Nuclear Physics



Example Topic

- Topic & Subtopic
 - You must specify the topic and subtopic in your letter of intent and application
- Topic Header
 - List the maximum award amounts for Phase I & Phase II and the types of application accepted
- Program Manager
 - Each subtopic lists the responsible DOE program manager
- Other Subtopic
- References

4. RADIATION DETECTION

Maximum Phase I Award Amount: \$150,000	Maximum Phase II Award Amount: \$1,000,000
Accepting SBIR Phase I Applications: YES	Accepting SBIR Fast-Track Applications: YES
Accepting STTR Phase I Applications: YES	Accepting STTR Fast-Track Applications: YES

The Office of Defense Nuclear Nonproliferation Research and Development (NA-22) is focused on enabling the development of next generation technical capabilities for radiation detection of nuclear proliferation activities. As such, the office is interested in the development of radiation detection techniques and sensors and advanced detection materials that address the detection and isotope identification of unshielded and shielded special nuclear materials, and other radioactive materials in all environments. In responding to these challenging requirements, recent research and development has resulted in the emergence of radiation detection materials that have good energy resolution. From these materials, the developments of radiation detectors that are rugged, reliable, low power and capable of high-confidence radioisotope identification are sought. Currently, the program is focused on the development of improved capabilities for both scintillator and semiconductor-based radiation detectors.

DNN R&D holds an annual University Information Technical Interchange (UITI) program review meeting where University and SBIR projects are presented to the program managers. All awardees are required to attend and present their progress at this meeting each year.

Grant applications are sought only in the following subtopics:

a. Handheld Detectors Using New Scintillator Materials

Spectroscopic handheld detectors incorporating a new scintillator, possibly coupled with a photomultiplier tube replacement technology. Low-cost, readily manufactured devices with performance equivalent, to or exceeding, Ce:LaBr₃ are of greatest interest.

Questions – contact: David Beach, David.Beach@nnsa.doe.gov

b. Photomultiplier Tube Replacement Technology

Alternatives requested to replace the existing PMT technology with new silicon photomultipliers (SiPM) used in a vast number of nuclear detectors. Important features needed are compatibility with high resolution detectors, signal shaping, voltage supply, temperature stabilization, high photodetection efficiency, dynamic range, and low thermal noise.

Questions – contact: David Beach, David.Beach@nnsa.doe.gov

c. Other

In addition to the specific subtopics listed above, the Department invites grant applications in other areas that fall within the scope of the topic description above.

Questions – contact: David Beach, David.Beach@nnsa.doe.gov

References:

Subtopic a

1. G.F. Knoll. *Radiation Detection and Measurement*. J. Wiley Publishers. New York. Available at <http://www.wiley.com/WileyCDA/WileyTitle/productCd-EHEP001606.html>

2. L.A. Boatner, et al. (2013). *Bridgman Growth of Large Sr₂Eu²⁺ Single Crystals: A High-performance Scintillator for Radiation Detection Applications*. Journal Of Crystal Growth. Volume 379. pp 63-68. Available at <http://www.sciencedirect.com/science/article/pii/S0022024813000821>

3. Zewu Yan, et al. (2014). *Eu²⁺-activated BaCl₂, BaBr₂ and BaI₂ Scintillators Revisited*. NUCLEAR Instruments & Methods in Physics Research Section A-Accelerators, Spectrometers, Detectors, and Associated Equipment. Volume 735. pp 83-87. Available at <http://www.sciencedirect.com/science/article/pii/S0168900213012552>

Subtopic b

1. G.F. Knoll. (2010). *Radiation Detection and Measurement*. J. Wiley Publishers. New York. Available at <http://www.wiley.com/WileyCDA/WileyTitle/productCd-EHEP001606.html>

2. G. Collazuol. (2012). *The SiPM Physics and Technology – a Review*. PhotoDet 2012. <https://indico.cern.ch/event/164917/contribution/72/material/slides/0.pdf>



Technology Transfer Opportunities (TTOs)

- An opportunity to transfer inventions made by a DOE National Lab or university to your small business for commercialization
- Awardees receive
 - an SBIR/STTR grant and
 - an option to license the technology
- Please review TTO information section at the beginning of the topic document if you plan to submit an application to a TTO.



- Technology Transfer Opportunity
 - The topic or subtopic will be clearly labeled
- Research Organization
 - The DOE National Lab or university responsible for the TTO is listed along with contact information and other references
 - Please contact the Lab or university to obtain information about the TTO
- DOE Program Manager

Maximum Phase I Award Amount: \$225,000	Maximum Phase II Award Amount: \$1,500,000
Accepting SBIR Phase I Applications: YES	Accepting SBIR Fast-Track Applications: YES
Accepting STTR Phase I Applications: YES	Accepting STTR Fast-Track Applications: YES

Grant applications are sought only in the following sub-topics:

An improved method and apparatus for surface ionization of samples for analysis by mass spectrometry has been developed. Analytes are probed using a small droplet of solvent that is formed at the junction between two capillaries. A supply capillary maintains the droplet of solvent on the substrate; a collection capillary collects analyte desorbed from the surface and emits analyte ions as a focused spray to the inlet of a mass spectrometer for analysis. The device has been shown to provide superior sensitivity to other methods of surface ionization and is particularly useful for imaging applications of mass spectrometry. Experimental results using the patented technology have been widely published including in *Analytical Chemistry* 2010, 82, 7979–7986. A need exists for a commercial partner to develop a commercial version of the new instrument for use by the broader research community.

TTO information: <http://availabletechnologies.pnnl.gov/technology.asp?id=313>

Patent Status: [USPTO # 8,097,845](#)

USPTO Link <http://patft.uspto.gov/netacgi/nph->

[Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO2%2Fsearch-bool.html&r=1&f=G&l=50&co1=AND&d=PTXT&s1=8097845.PN.&OS=PN/8097845&RS=PN/8097845](#)

TTO tracking number: IPID-16593


Contact: Bruce Harrer; (509) 375-6958; bruce.harrer@pnnl.gov or

Julia Laskin; (509) 371-6136; julia.laskin@pnnl.gov

Questions – contact Larry.Rahn@science.doe.gov

Funding Opportunity Announcement (FOA)

- FOA
 - Available at the [DOE SBIR website](#) or [Grants.gov](#) and includes information on
 - Anticipated number of awards and funding available
 - Eligibility
 - Application Requirements
 - Review Criteria
 - Award Administration
 - Open for approximately 9 weeks
- Communications with DOE program managers
 - Open communication permitted to clarify the scope of the topic and subtopic



**U.S. DEPARTMENT OF
ENERGY**

FINANCIAL ASSISTANCE
FUNDING OPPORTUNITY ANNOUNCEMENT

Small Business Innovation Research (SBIR)
Small Business Technology Transfer (STTR)

FY 2016 Phase I Release 1

Funding Opportunity Number: DE-FOA-0001366
CFDA Number: 81.049

ISSUE DATE: August 17, 2015

LETTER OF INTENT DUE DATE: Tuesday, September 08, 2015, 5:00 PM EASTERN TIME

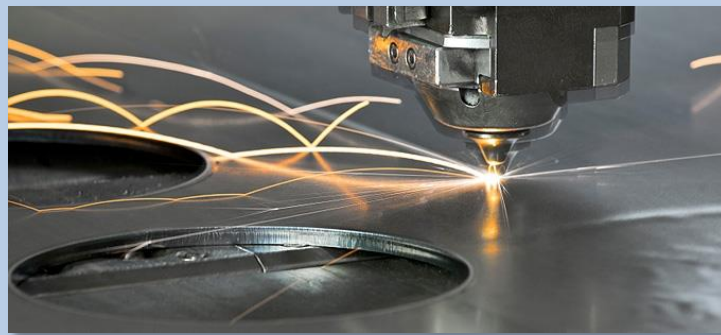
PRE-APPLICATION DUE DATE: Not Required

APPLICATION DUE DATE: Monday, October 19, 2015, 11:59 PM EASTERN TIME



Commercialization

- DOE topics are drafted by program managers who are aware of the technology roadblocks but may not be aware of the commercialization challenges
- Small business applications are expected to address the commercialization challenges and ensure that there is a profitable business opportunity
 - Phase I & II Applications must include Commercialization Plans
- DOE performs follow-up surveys to track commercialization outcomes of its SBIR/STTR awards



Letters of Intent (LOI)

- Requirement
 - You must submit an LOI by the due date to be eligible to submit an application
- Primary purpose
 - begin reviewer assignment to reduce award cycle time
 - due 3 weeks after FOA is issued
- Secondary purpose
 - provide email notification to applicants who appear to be non-responsive; you may submit a formal application if you receive this notification
 - Applicants whose LOI appears responsive will NOT receive a notification
- Limits
 - Small businesses may submit only 10 letters of intent (and 10 applications) per solicitation

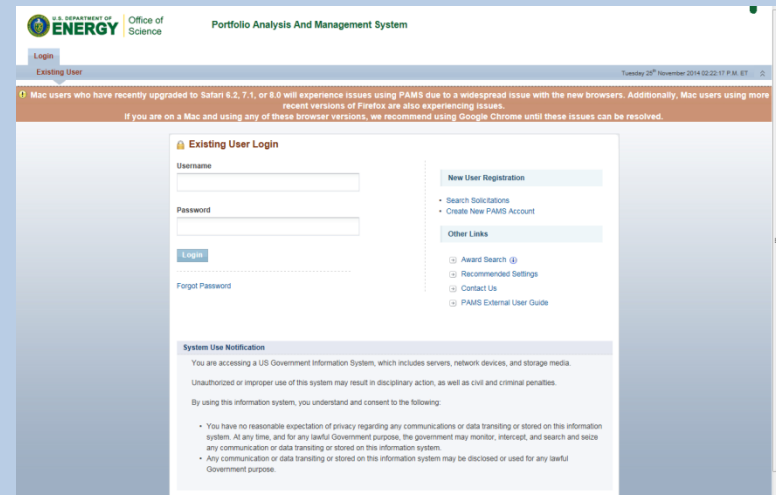
Content of LOI

- Title
- Topic and subtopic
- Abstract (<500 words)
 - ***Provide sufficient technical detail to enable reviewer assignment***
 - Non-proprietary
- List of collaborators
- Small business information
 - Name, address
 - Business official and contact information
 - Principal investigator
- Phase I or Fast-Track



Letter of Intent (LOI) Submission

- Submit LOI online directly to the DOE Portfolio Analysis and Management System (PAMS) website:
<https://pamspublic.science.energy.gov/>.
 - Select “Create New PAMS Account” (if you do not have an account)
 - Submit your abstract as a PDF file
 - Utilize the [LOI instructions](#) available at the DOE website to ensure that you submit all the required information
 - For additional details on the LOI submission process, see the Funding Opportunity Announcement

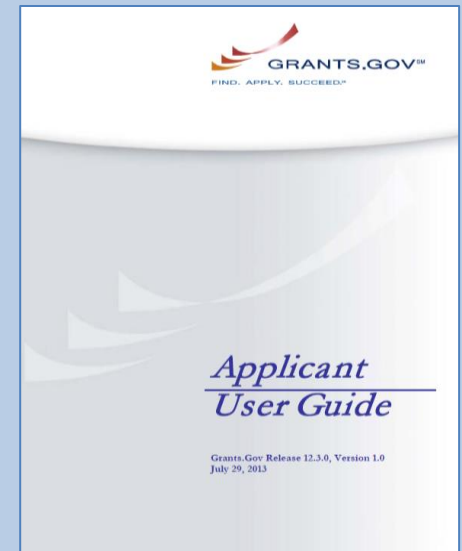


The screenshot shows the login page for the Portfolio Analysis And Management System (PAMS) on the DOE website. The page has a header with the U.S. Department of Energy logo and the text 'Office of Science' and 'Portfolio Analysis And Management System'. Below the header, there is a 'Login' button and a 'Existing User' link. A warning message at the top states: 'Mac users who have recently upgraded to Safari 6.2.7.1, or 6.0 will experience issues using PAMS due to a widespread issue with the new browsers. Additionally, Mac users using more recent versions of Firefox are also experiencing issues. If you are on a Mac and using any of these browser versions, we recommend using Google Chrome until these issues can be resolved.' The main content area is titled 'Existing User Login' and contains fields for 'Username' and 'Password', a 'Login' button, and a 'Forgot Password' link. To the right, there is a 'New User Registration' section with links for 'Search Publications' and 'Create New PAMS Account'. Below that, there is an 'Other Links' section with links for 'Award Search', 'Recommended Settings', 'Contact Us', and 'PAMS External User Guide'. At the bottom, there is a 'System Use Notification' section with a disclaimer about the system being a US Government Information System and a list of terms of use.



Application Process: Registration


- Applications must be submitted through [Grants.gov](https://www.grants.gov)
- Registration at Grants.gov is a 3 step process
 1. Obtain a DUNS number
 2. Complete a SAM registration.
 - Must be updated annually
 3. Complete Grants.gov registration
 - Start this process as early as possible!
- See the Grants.gov [Applicant User Guide](#) for more details on this process
- SBA company registry
 - Small businesses must register at the SBA company registry (<http://www.sbir.gov/registration>) and submit a copy of their registration with their grants.gov application



Completing an Application

- Download and complete the application package
 - Available at Grants.gov
 - Can be completed offline
- Important documents to assist you with completing the application package
 - Topics Document, Funding Opportunity Announcement, & Instructions are available at the [DOE SBIR/STTR website](#)
 - **New!** Online tutorials are available at <http://www.doesbirlearning.com/>

[illegible]

 **U.S. Department of Energy**


Small Business Innovation Research
Small Business Technology Transfer (STTR)

Topics

**FY 2013
Phase I
(Release 1)**

Participating DOE Research Labs

- Office of Advanced Scientific Computing Research •
- Office of Basic Energy Sciences •
- Office of Biological and Environmental Research •
- Office of Defense Nuclear Negotiation •

 **U.S. DEPARTMENT OF ENERGY**


**FINANCIAL ASSISTANCE
FUNDING OPPORTUNITY ANNOUNCEMENT**

**Small Business Innovation Research (SBIR)
Small Business Technology Transfer (STTR)**


FY 2012 Phase I (Release 1)

Funding Opportunity Number: DE-FOA-000057
Announcement Type: Initial
CFDA Number: 81.049

ISSUE DATE: August 21, 2011
LETTER OF INTENT DUE DATE: August 25, 2011, 11:59 PM Eastern
PREAPPLICATION DUE DATE: Not Required
APPLICATION DUE DATE: September 19, 2011, 11:59 PM Eastern

 **U.S. Department of Energy (DOE)**

**Instructions for Completing a
DOE SBIR/STTR Phase I
Grant Application**

 **SBIR / STTR** Small Business Innovation Research
Small Business Technology Transfer

Updated July 2011
Page 1

Important Elements of Your Application

- Project Narrative
 - Page and word limits
 - Phase I: 15 pages, 7,500 words
 - Phase II: 20 pages, 10,000 words
 - Fast-Track: 25 pages, 12,500 words
- Budget & Budget Justification
- Key Personnel
- Commercialization Plans
 - Phase I commercialization plan
 - An example can be found [here](#)
 - Phase II commercialization plan
- SBIR/STTR Information
- Data Management Plan

The screenshot shows the Grants.GOV Grant Application Package interface. At the top, there are buttons for 'Save & Submit', 'Save', 'Print', 'Cancel', and 'Check Package for Errors'. The main section is titled 'Grant Application Package' and contains a form with various fields for application details. A blue box on the right contains instructions: 'This electronic grants application is intended to be used to apply for the specific Federal funding opportunity referenced here. If the Federal funding opportunity listed is not the opportunity for which you want to apply, please close this application package by clicking on the "Close" button at the top of this screen. You will then need to locate the correct Federal funding opportunity, download its application and then apply.'

The form fields include:

- Opportunity Title: Small Business Innovation Research (SBIR) Small Business
- Offering Agency: Chicago Service Center
- CFDA Number: 41.049
- CFDA Description: Office of Science Financial Assistance Program
- Opportunity Number: SB-FOA-000077
- Competition ID: SB-FOA-000077
- Opportunity Open Date: 08/01/2011
- Opportunity Close Date: 09/19/2011
- Agency Contact: Carl Rebrin, E-mail: sbir-sttr@science.doe.gov, Phone: 301-903-5707

Below the form, there are sections for 'Mandatory Documents' and 'Optional Documents'. The 'Mandatory Documents' section includes 'SF424 (R & S)', 'Research & Related Budget', 'Project/Performance Site Location(s)', 'Research And Related Senior/Key Person Profile', 'Research And Related Other Project Information', and 'SBIR/STTR Information'. The 'Optional Documents' section includes 'Research & Related Subaward Budget (Total Fed + Disclosure of Lobbying Activities (SF-555)'. Each document has a 'Move Form to Complete' button and a 'Move Form to Delete' button. There are also 'Open Form' buttons for each document.

At the bottom, there is an 'Instructions' section with three numbered steps:

1. Enter a name for the application in the Application Filing Name field.
 - This application can be completed in the agency office, however, you will need to login to the Grants.gov website during the submission process.
 - You can save your application at any time by clicking the "Save" button at the top of your screen.
 - The "Save & Submit" button will not be functional until all required data fields in the application are completed and you click on the "Check Package for Errors" button and confirmed all data required data fields are completed.
2. Open and complete all of the documents listed in the "Mandatory Documents" box. Complete the SF-424 form first.
 - It is recommended that the SF-424 form be the first form completed for the application package. Data entered on the SF-424 will populate data fields in other mandatory and optional forms and the user cannot enter data in these fields.
 - The forms listed in the "Mandatory Documents" box and "Optional Documents" may be predefined forms, such as SF-424, forms where a document needs to be attached, such as the Project Narrative or a combination of both. "Mandatory Documents" are required for this application. "Optional Documents" can be used to provide additional support for this application or may be required for specific types of grant activity. Reference the application package instructions for more information regarding "Optional Documents".
 - To open and complete a form, simply click on the form name to select the form and then click on the "Open" button. This will move the document to the appropriate "Documents for Submission" box and the form will be automatically added to your application package. To view the form, scroll down the screen or select the form name and click on the "Open Form" button to begin completing the required data fields. To remove a form from the "Documents for Submission" box, click the document name to select it, and then click the "X" button. This will return the form to the "Mandatory Documents" or "Optional Documents" box.
 - All documents listed in the "Mandatory Documents" box must be moved to the "Mandatory Documents for Submission" box. When you open a required form, the fields which must be completed are highlighted in yellow with a red border. Optional fields and completed fields are displayed in white. If you enter invalid or incomplete information in a field, you will receive an error message.
3. Click the "Save & Submit" button to submit your application to Grants.gov.
 - Once you have properly completed all required documents and attached any required or optional documentation, save the completed application by clicking on the "Save" button.
 - Click on the "Check Package for Errors" button to ensure that you have completed all required data fields. Correct any errors or if none are found, save the application package.
 - The "Save & Submit" button will become active, click on the "Save & Submit" button to begin the application submission process.
 - You will be taken to the applicant login page to enter your Grants.gov username and password. Follow all onscreen instructions for submission.



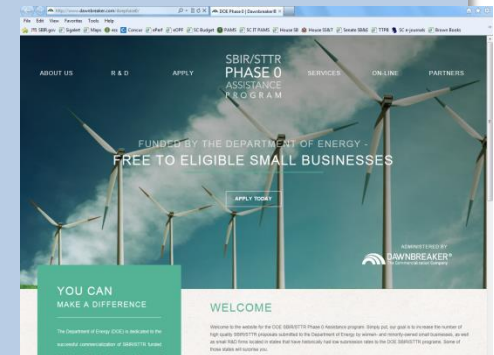
Data Management Plan

- Purpose
 - Disseminate, as widely as possible, data generated with public funding
- Requirement
 - All SBIR and STTR applications must select one of the two Data Management Plan (DMP) options below:
- Option 1
 - The Option 1 DMP is: “It is anticipated that all generated digital data will be protected as SBIR/STTR data and therefore will not be publicly shared during the applicable SBIR/STTR data protection period.” If any data generated under this award are published, an effort will be made to also release any related digital data that is not protected SBIR/STTR data.”
 - Please note that if you do not include a DMP with your application, Option 1 for the DMP will be assumed for your application. However, If you plan to publicly disclose generated digital data, you must provide a DMP under Option 2.
- Option 2
 - If you plan to publicly disclose technical data during the data protection period or, for data not expected to be asserted as protected SBIR/STTR rights data , please submit a DMP use the DMP requirements outlined in the Funding Opportunity Announcement.



Phase 0 Assistance Program

- Goal
 - increase the number of responsive, high quality proposals from under-represented groups
 - small businesses from states with historically low SBIR/STTR applications to the DOE
 - AK, DC, GA, HI, IA, ID, IN, KS, LA, ME, MN, MS, MT, NC, ND, NE, NY, OK, PA, PR, RI, SC, SD, WA, WI
 - women-owned small businesses
 - minority-owned small businesses
- Services
 - Letter of Intent (LOI) writing assistance
 - Phase I proposal preparation, review and submission assistance
 - Small business development training and mentoring
 - Communication and market research assistance
 - Technology advice and consultation
 - Indirect rate and financial information
- Cost
 - Since this program is entirely funded by the DOE there is no cost to participants
- Website: <http://www.dawnbreaker.com/doephase0/>.



Top 5 Application Errors

- Serious Errors (Applications Ineligible for Review or Administratively Declined)
 - *Failed to update SAM registration early—unable to submit application to Grants.gov by deadline*
 - *Failed to submit a Phase I Commercialization Plan*
 - Submit in Field 12 of the Research & Related : Other Project Information Form
 - *Improper filenames for attachments to grants.gov application*
 - Use only standard characters in file names: A through Z, a through z, 0 through 9, and underscore (_). Do not use any special characters (example: “&”, “-”, “*”, “%”, “/”, and “#”) or spacing in the file name. Use underscore (example: “My_Attached_File.pdf”) for word separation.
- Other Errors (may limit funding eligibility or delay award processing, if recommended for award)
 - *Failed to accurately calculate level of effort (for SBIR and/or STTR)*
 - Use [level of effort worksheet](#) to assist you with the calculation
 - *Failed to properly mark proprietary data*
 - See FOA for instructions



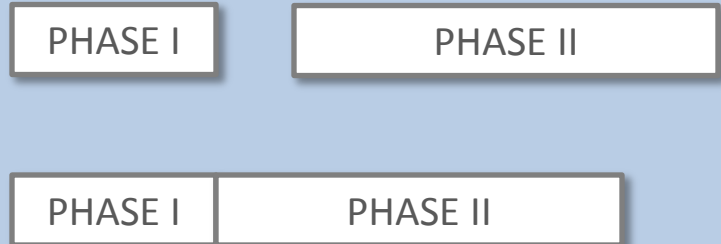
SBIR vs. STTR

- DOE uses the same topics for SBIR & STTR
 - All topics accept SBIR applications; some topics may not accept STTR applications so please check the topic header prior to submission
- Applicants can apply to either or both programs with a single application
 - If you apply to both programs, you must meet the requirements for both



Phase I vs. Fast-Track Applications

- Applicants may submit either a Phase I or Fast-Track application to our Phase I Funding Opportunity Announcements
- What is a Fast-Track application?
 - Combined Phase I/Phase II application
 - Budget period: up to 33 months
 - Up to 9 months for Phase I (6 month minimum)
 - Up to 24 months for Phase II
 - Technical Narrative
 - Covers the entire budget period
 - Commercialization Plan
 - Requires Phase II commercialization plan (Phase I commercialization plan not required)
- Applicants must have a compelling Phase I/Phase II application.
 - May not be suitable for risky Phase I research with many different paths for Phase II
 - May not be suitable for those with limited commercialization experience



Fast Track FAQ

- May I submit both a regular Phase I and a Fast-Track application for the same project?
 - NO. You must submit either a Phase I or a Fast-Track application, but not both
- What percentage of the awards will be Fast-Track vs. Phase I?
 - For FY15 approximately 3% of the applications received were Fast-Track and Fast-Track applications had slightly higher award rates than the Phase I applications
- Will all topics accept Fast-Track applications?
 - No. Please refer to the topic header to ensure that Fast-Track applications are being accepted

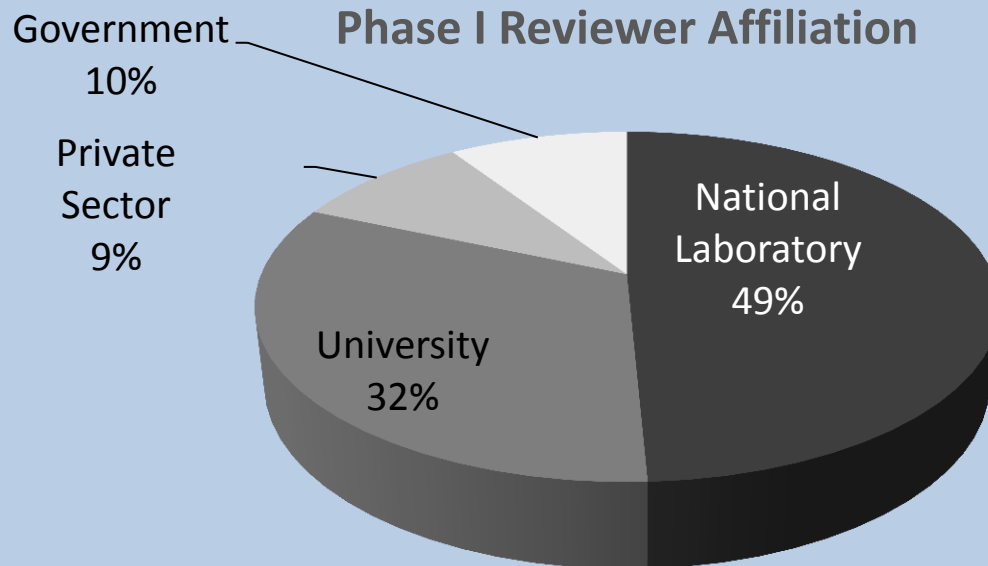


Review and Selection of Applications

- DOE primarily uses external peer review to evaluate your applications
 - Typically at least 3 technical reviewers
 - 1 reviewer for the Phase II commercialization plan
- Review Criteria (equally weighted)
 - Strength of the Scientific/Technical Approach
 - Ability to Carry Out the Project in a Cost Effective Manner
 - Impact
- You will be notified of the decision on your application within 90 days of the application deadline
 - Reviewer comments will be made available to you. Use this feedback constructively to improve future applications



Technical Reviewer Affiliation



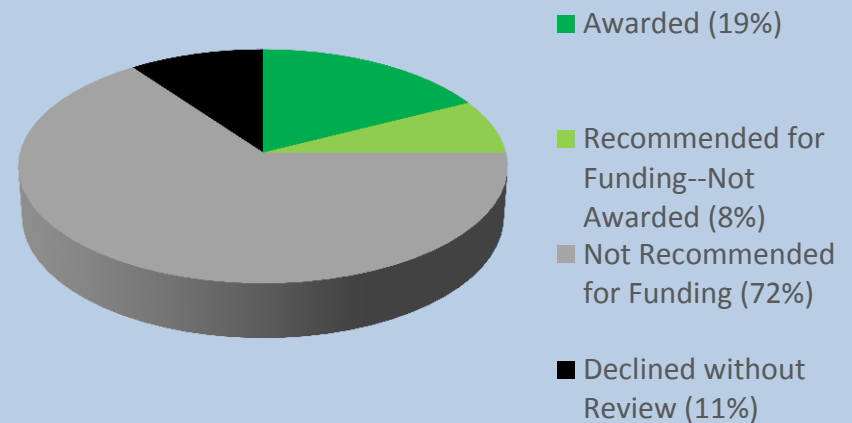
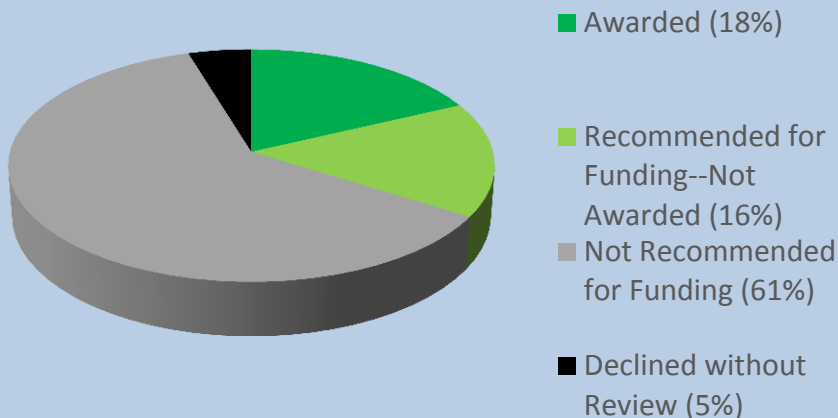
- Reviewers agree that (1) they will keep application information confidential and (2) they do not have a conflict of interest in reviewing the application.



Application & Award Statistics for FY 2015

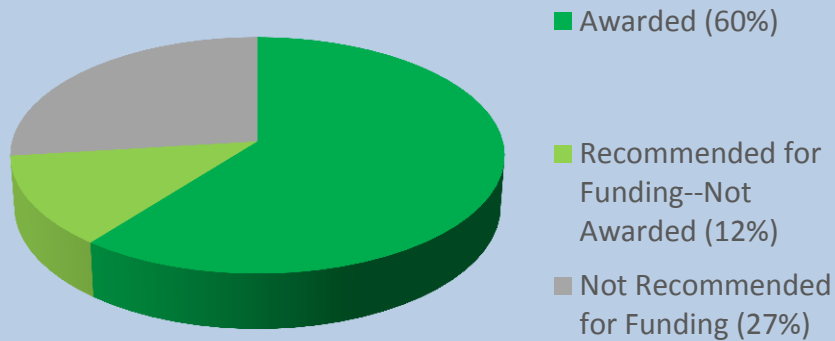
- Phase I
 - 1556 applications
 - 208 awards

- Fast-Track
 - 43 applications
 - 4 awards

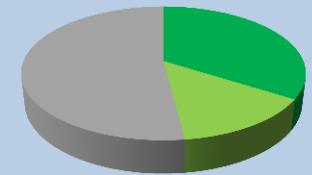
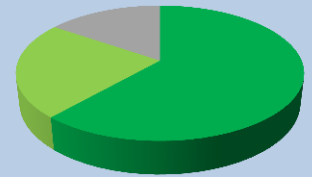


Application & Award Statistics for FY 2015

- Phase II
 - 209 applications
 - 126 awards



- Phase IIA
 - 13 applications
 - 8 awards
- Phase IIB
 - 53 applications
 - 17 awards



Commercialization Assistance

- DOE Commercialization Assistance
 - Provided by Dawnbreaker
 - Phase I assistance
 - Commercialization Readiness Assessment
 - Focused assistance with development of Phase II commercialization plans
 - Phase II assistance
 - Flexible offerings to meet a variety of commercialization needs
 - <http://science.energy.gov/sbir/commercialization-assistance/>
- Company-selected commercialization assistance vendor
 - Up to \$5000 for Phase I; up to \$5000/year in Phase II
 - Companies may select their own vendors to provide commercialization assistance
 - Company must include this vendor as a subcontractor or consultant in their Phase I or II application



DOE Office of Inspector General Fraud, Waste & Abuse



DOE Office of Inspector General

Combating Fraud

- *What types of fraud are found in the SBIR Program?*
- Application Process
 - submitting a plagiarized proposal
 - providing false information regarding the company, the Principal Investigator (PI), or work to be performed
 - seeking funding for work that has already been completed
- During Award
 - using award funds for personal use or for any use other than the proposed activities
 - submitting plagiarized reports or reports falsely claiming work has been completed
 - claiming results for an award that were funded by a different source



DOE Office of Inspector General

Knowing the Rules

- ***Which SBIR rules should you be particularly familiar with?***
 - Duplicate or overlapping proposals may not be submitted to multiple agencies without full disclosure to all agencies.
 - The company must meet SBA's requirements for a small business, including being majority American owned and have 500 employees or fewer.
 - For SBIR: The PI's primary employment must be with the company during the grant period. The PI may not be employed full time elsewhere.
 - For SBIR: For Phase I, a minimum of two thirds of the research effort must be performed by the grantee company; for Phase II, a minimum of one-half of the research effort must be performed by the grantee company. Work performed by a university research lab is NOT work completed by the grantee company.
 - University employees participating on an SBIR award should disclose their involvement to the university as well as their use of university facilities.
 - R&D must be performed in the United States.



DOE Office of Inspector General

Consequences

- ***What Happens If You Break the Rules?***
 - If you commit fraud or other wrongdoing in applying for or carrying out an SBIR award, we will investigate.
 - We refer violations of civil or criminal law to the Department of Justice (DOJ). If DOJ prosecutes you for fraud or false statements, you may be sentenced to prison and required to pay full restitution. If DOJ pursues a civil action under the False Claims Act, you may have to pay treble damages and \$11,000 for each false claim. In addition, DOE may terminate your awards and debar you from receiving grants or contracts from any federal agency.



Recent Prosecution

Fla. Scientists Sentenced For \$10.6M Federal Grant Fraud

By Nathan Hale

Law360, Miami (September 11, 2015, 5:08 PM ET) -- Two scientists convicted of fraudulently obtaining government research grants from the U.S. Department of Defense and other agencies were sentenced Thursday in Tampa, Florida, to federal prison terms and ordered to pay \$10.6 million in restitution.

U.S. District Judge Virginia Hernandez Covington ordered 15 years' imprisonment for Mahmoud Aldissi and 13 years for Anastassia Bogomolova, who were both **found guilty by a federal jury** on March 20.

Aldissi, owner of Fractal Systems Inc., and Bogomolova, owner of Smart Polymers Research Corp., were convicted of submitting proposals for research contracts between 2004 and 2014 using stolen identities in order to create false endorsements for their proposed contracts. The jury found each of them guilty of 15 counts, including conspiracy, wire fraud, falsification of records and aggravated identity theft.

<http://www.law360.com/articles/701813/fla-scientists-sentenced-for-10-6m-federal-grant-fraud>



U.S. DEPARTMENT OF
ENERGY

SBIR/STTR
Programs Office

DOE Office of Inspector General

Reporting Fraud

- The Department of Energy's Office of Inspector General (OIG) promotes the effective, efficient, and economical operation of DOE's programs and operations through audits, inspections, investigations, and other reviews.
- Within DOE OIG, the Office of Investigations is responsible for investigating any fraudulent acts involving DOE, its contractors or subcontractors, or any crime affecting the programs, operations, Government funds, or employees of those entities.
- ***If you want additional information or to report wrongdoing***

Internet: ig.energy.gov

E-mail: ighotline@hq.doe.gov

Telephone: 202-586-4073

Hotline: 800-541-1625

Fax: 202-586-5697

U.S. DEPARTMENT OF ENERGY
OFFICE OF INSPECTOR GENERAL
ATTN: OFFICE OF INSPECTIONS
1000 INDEPENDENCE AVENUE, SW
MAIL STOP 5D-031
WASHINGTON, DC 20585



Questions?

Contact information:

- DOE SBIR/STTR Operations: 301-903-5707
- DOE SBIR/STTR Email: sbir-sttr@science.doe.gov

Our Website:

- DOE SBIR/STTR Website: www.science.energy.gov/sbir

Join our Mailing List:

- DOE SBIR/STTR Mailing List: <http://1.usa.gov/12SkziW>

Resources



DOE SBIR webpage

<http://science.energy.gov/sbir/>

The screenshot shows the DOE SBIR/STTR homepage. On the left, three blue callout bubbles point to specific features: 'Funding Opportunities' points to the 'Funding Opportunity Announcements (FOAs)' link in the left sidebar; 'Applicant Resources' points to the 'Applicant and Awardee Resources' link in the same sidebar; and 'Join our mailing list to ensure you are notified when topics and FOAs are posted' points to the 'Join Mailing List' link at the bottom of the sidebar. The main content area features a 'FY 2015 DOE SBIR/STTR Overview webinar' announcement, a 'Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR)' banner, and a 'CONTACT INFORMATION' section for the SBIR/STTR Programs Office. The footer includes the DOE logo and the text 'U.S. DEPARTMENT OF ENERGY SBIR/STTR Programs Office'.



U.S. DEPARTMENT OF
ENERGY

SBIR/STTR
Programs Office

DOE Funding Opportunities Tab

SC Home Organization Jobs Contact DOE Home »

U.S. DEPARTMENT OF **ENERGY** Office of Science

Search SC Website SC Site Search GO

Programs Laboratories User Facilities Universities Funding Opportunities Discovery & Innovation News About

You are here: SC Home » Programs » SBIR/STTR Home » Funding Opportunity Announcements (FOAs)

Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR)

Funding Opportunity Announcements (FOAs)

Print | Text Size: A A A Feedback | Share Page

Fiscal Year: FY16 (current), FY15 (closed)

2016

Phase I

	Release 1	Release 2
Topics Issued	Monday, July 20, 2015	Monday, November 02, 2015
Document	Phase I Release 1 Topics (799KB)	
Webinar(s)	Topics 1-15 Webinar Topics 17-19 Webinar Topics 21-25 Webinar	Week of November 09, 2015
FOA Issued	Monday, August 17, 2015	Monday, November 30, 2015
Document	Phase I Release 1 FOA (819KB) (DE-FOA-0001368)	
Webinar(s)	Friday, August 21, 2015 – FOA (Register) Friday, August 28, 2015 – Indirect Rates	Friday, December 04, 2015
Letters of Intent (LOI) Due	Tuesday, September 08, 2015 5:00pm ET	Monday, December 21, 2015 5:00pm ET
Applications Due	Monday, October 19, 2015 11:59pm ET	Tuesday, February 09, 2016 11:59pm ET
Award Notification	Early January 2016*	Early May 2016*
Projected Grant Start Date	Monday, February 22, 2016	Monday, June 13, 2016

*Preliminary dates subject to change

Phase II (only Phase I awardees are eligible to apply)

	Release 1	Release 2
FOA Issued	Monday, October 26, 2015	Tuesday, February 16, 2016
LOI (Sequential) Due	Monday, November 16, 2015 5:00pm ET	Wednesday, March 16, 2016 5:00pm ET
Applications Due	Tuesday, December 15, 2015 11:59pm ET	Tuesday, April 05, 2016 11:59pm ET
Award Notification	Late February 2016*	Mid June 2016*
Projected Grant Start Date	Monday, April 11, 2016	Monday, August 01, 2016

*Preliminary dates subject to change

Last modified: 5/19/2015 12:28:11 PM

CONTACT INFORMATION
Small Business Innovation Research and Small Business Technology Transfer
U.S. Department of Energy
SC-25 Carmichael Building
1000 Independence Ave., SW
Washington, DC 20585
P: (301) 903-5707
F: (301) 903-5458
E: Email Us

[Join Mailing List](#)

[More Information](#)

Documents and Webinars for Topics and FOAs are posted here



general
information for
those new to SBIR

Federal SBIR webpage

sbir.gov

The screenshot shows the Federal SBIR/STTR website. At the top, the logo reads "SBIR • STTR America's Seed Fund™ POWERED BY SBA". A navigation bar includes links for HOME, ABOUT, FUNDING, AWARDS, NEWS, EVENTS, and RESOURCES. A blue arrow points from the "ABOUT" link to a callout bubble. Below the navigation bar is a large blue button labeled "FIND FUNDING". To its right is a search bar with the placeholder text "Search Open Funding Topics" and a "Search" button. A blue arrow points from a callout bubble to this search bar. Below the main banner are three columns: "LEARN ABOUT" with links for Overview and Policy Directive; "I'M A(AN)..." with a link for Applicant; and "I WANT TO..." with links for START A SMALL BUSINESS and REGISTER MY COMPANY. The background of the main banner features a hand pointing at a screen.

SBIR • STTR
America's Seed Fund™
POWERED BY SBA

HOME ABOUT FUNDING AWARDS NEWS EVENTS RESOURCES

FIND FUNDING

Search Open Funding Topics Search

LEARN ABOUT

- Overview
- Policy Directive

I'M A(AN)...

- Applicant

I WANT TO...

- START A SMALL BUSINESS
- REGISTER MY COMPANY



U.S. DEPARTMENT OF
ENERGY

SBIR/STTR
Programs Office